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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,261	07/07/2003	John Taboada	382/103	7790

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Dr. John Taboada
12530 Elm Country
San Antonio, TX 78230

EXAMINER	
PERVAN, MICHAEL	
ART UNIT	PAPER NUMBER
2677	

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/614,261	TABOADA, JOHN	
	Examiner	Art Unit	
	Michael Pervan	2677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 June 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) *18-25* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10, 12 and 14-17* is/are rejected.

7)☒ Claim(s) *11 and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of group I, claims 1-17, in the reply filed on September 28, 2005 is acknowledged. The traversal is on the ground(s) that Group II claims are not to a mouse, but rather to a cursor-mark position control device. Unlike a mouse, the device is not moved in order to control the cursor-mark. Instead, the device is stationary and the cursor mark is control by movement of the user's finger over an optical emitter and receiver device. Both group I and group II claims operate on the same novel principle, generation of a laser speckle or interference pattern and the detection of the movement of said pattern for the control of the cursor-mark. In group I claims, the laser and speckle pattern generator are separated from the detector. In group II claims, the laser and detector are combined into the same device and the speckle pattern is generate off the user's finger. Both group I and II claims are both based on the common generic invention of cursor-mark control from the detecting of the movement of a laser speckle pattern. This is not found persuasive because Group I (claims 1-17) and Group II (claims 18-24) are two different and distinct inventions. There was a serious burden on the examiner since the inventions required additional unrelated searches. In this case, the search for Group I is a headset for controlling the position of a cursor marker, class 345, subclass 156 while the search for Group II is a finger controlled mouse, class 345, subclass 166.

The requirement is still deemed proper and is therefore made FINAL.

Specification

2. The disclosure is objected to because of the following informalities: page 1, line 14: date should be data; page 2, line 1: second instance of generating is not needed; page 2, line 21; HDNS 200 should be HDNS 2000.

Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
(f) BACKGROUND OF THE INVENTION.
(1) Field of the Invention.
(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Content of Specification

(a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.

(b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.

(c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.

(d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).

(e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.

(f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:

(1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."

(2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art

known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

(g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

(h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.

(i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

(j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).

(k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international

application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

(l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

Claim Objections

3. Claim 8 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 8 is already cited in claim 1 and does not further limit claim 1 in any way.

4. Claim 9 is objected to because of the following informalities: referral to a specific part number (HDNS 2000) is not preferred claim language. Appropriate correction is required.

5. Claim 11 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The circuits being recommended by the sensor manufacturer does not have further limitations.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2, 3 and 17 contains the trademark/trade name Microsoft Windows XP. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe an operating system for a computer and, accordingly, the identification/description is indefinite.

7. Claim 9-12 contains the trademark/trade name Agilent Technologies. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or

trade name. In the present case, the trademark/trade name is used to identify/describe optical mouse sensor and, accordingly, the identification/description is indefinite.

8. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term maybe is indefinite. The receiver either is or isn't of the Bluetooth type.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 1, 4, 6-12 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drumm in view of Pelosi and Chen (US 2004/0039462).

In regards to claims 1, 8 and 9, Drumm discloses an apparatus for controlling the position of a cursor marker on a computer monitor screen and selecting the computer action such as on-screen virtual button pushing, icon positioning and file actions such as opening or closing, comprising;

a headset based on the computer user's head (col. 5, lines 10-12), and a microphone (col. 3, lines 26-31).

Drumm does not disclose a headset having a laser speckle or interference pattern generator affixed there onto projecting a laser speckle pattern generally onto the computer screen, a wireless transmitter, a small battery power source, a solid state

optical mouse sensor affixed to the side of the computer screen and positioned such that it receives the speckle or interference pattern and a wireless receiver conveying the spoken instructions of the operator into the microphone port of the computer.

Pelosi discloses a headset having a laser speckle or interference pattern generator affixed there onto projecting a laser (col. 19, lines 40-42) speckle pattern generally onto the computer screen (col. 5, lines 10-23), a wireless transmitter (col. 8, lines 39-41), a small battery power source (col. 8, lines 39-41), and a solid state optical mouse sensor affixed to the side of the computer screen and positioned such that it receives the speckle or interference pattern (col. 5, lines 10-23). It would have been obvious at the time of invention to modify Drumm with the teachings of Pelosi because it makes controlling a computer much easier.

Drumm and Pelosi do not disclose a wireless receiver conveying the spoken instructions of the operator into the microphone port of the computer (paragraph 28). It would have been obvious at the time of invention to modify Drumm and Pelosi with the teachings of Chen because it allows the user to move around more freely while still speaking commands to the computer.

Chen does disclose a wireless receiver conveying the spoken instructions of the operator into the microphone port of the computer. It would have been obvious at the time of invention to modify Drumm and Pelosi with the teachings of Chen because it makes it easier for the computer to decode the commands.

In regards to claim 4, Drumm discloses a headset, which moves with the operator's head movement (col. 2, lines 6-10).

In regards to claim 6, Drumm does not disclose a microphone communicating the spoken commands by the computer operator to a wireless transmitter.

Pelosi does disclose a microphone communicating the spoken commands by the computer operator to a wireless transmitter (col. 8, lines 39-41; the output in this case would be the spoken commands of the computer operator). It would have been obvious at the time of invention to modify Drumm with the teachings of Pelosi because it give the computer operator better range of motion and more freedom to move around.

In regards to claim 7, Pelosi discloses wireless transmitter communication by electromagnetic means (col. 8, lines 39-41; radio frequency, RF, is part of the electromagnetic spectrum).

In regards to claim 9, it would have been obvious to use the HDNS 2000 since it is widely available in the marketplace.

In regards to claim 10, Drumm does not disclose a sensor connected to supporting circuits which are in turn connected to the USB or mouse port of the computer.

Pelosi does disclose a sensor connected to supporting circuits which are in turn connected to the USB or mouse port of the computer (col. 9, lines 3-7). It would have been obvious at the time of invention to modify Drumm with the teachings of Pelosi because it would allow for better communication between the sensor and the computer.

In regards to claim 11, Drumm and Chen do not disclose circuits that are from the sensor manufacturer.

Pelosi discloses circuits that are from the sensor manufacturer (col. 3, lines 25-30; processor module is the circuit from the manufacturer). It would have been obvious at the time of invention to modify Drumm as modified with the teachings of Pelosi because the circuits of the manufacturer would have been designed and built to work with the sensor.

In regards to claim 12, Drumm does not disclose a sensor having the lens and aperture removed so as to permit the speckle or interference pattern to impinge on the complete sensor surface.

Pelosi discloses a sensor having the lens and aperture removed so as to permit the speckle or interference pattern to impinge on the complete sensor surface (col. 9, lines (col. 6, lines 50-67 and col. 7, lines 1-17). It would have been obvious at the time of invention to modify Drumm with the teachings of Pelosi since it would give more accurate results because the entire surface is being covered by the speckle or interference pattern.

In regards to claim 14 and 15, they claim method steps paralleled to the structural means cited in claims 1, 4 and 3 respectfully and are therefore rejected for the same reasons, see MPEP 2112.02 *In re King* ("When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process").

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Drumm in view of Pelosi, Chen and Olson et al (US 2002/0115426).

In regards to claim 13, Drumm, Pelosi and Chen do not disclose a wireless transmitter and receiver of the Bluetooth type.

Olson discloses a wireless transmitter and receiver of the Bluetooth type (see, Figure 4 and paragraph 26). It would have been obvious at the time of invention to modify Drumm as modified with the teachings of Olson because Bluetooth allows for less power consumption.

11. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Drumm, Pelosi, Chen and in view of Koizumi et al (US 5,883,616).

In regards to claim 16, Drumm as modified does not disclose cursor motion control being accomplished by the process characteristic of the solid state optical mouse sensor except that the left-right designation must be reversed electronically or in computer software.

Koizumi disclose cursor motion control being accomplished by the process characteristic of the solid state optical mouse sensor except that the left-right designation must be reversed electronically or in computer software (col. 6, lines 13-22). It would have been obvious at the time of invention to modify Drumm as modified with the teachings of Koizumi because it makes a motion to the left cause the cursor to move left, otherwise the cursor would move right.

12. Claim 2, 3 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drumm, Pelosi, Chen and in view of Frulla et al (US 6,424,357).

In regards to claim 2, Drumm does not disclose the use of a computer with an operating system with a graphical user interface (GUI).

Frulla discloses the use of a computer with an operating system with a GUI (col. 5, lines 4-5). It would have been obvious at the time of invention to modify Drumm as modified with the teachings of Frulla because GUIs make controlling a computer much easier to do. Also it allows for cursor control as opposed to keyboard.

In regards to claim 3, Drumm as modified does not disclose a computer which is programmed to understand through word recognition software, spoken audible commands corresponding to computer commands normally entered on the keyboard or launched by a virtual button push with a computer mouse button.

Frulla discloses a computer which is programmed to understand through word recognition software, spoken audible commands corresponding to computer commands normally entered on the keyboard or launched by a virtual button push with a computer mouse button (col. 4, lines 57-64). It would have been obvious at the time of invention to modify Drumm as modified with the teachings of Frulla because it allows the user to more easily control the computer.

In regards to claim 17, Drumm, Pelosi and Chen do not disclose spoken command understanding done by conventional voice recognition software.

Frulla discloses spoken command understanding done by conventional voice recognition software (col. 7, lines 14-18). It would have been obvious at the time of invention to modify Drumm as modified with the teachings of Frulla since software is easier to incorporate into the system than hardware would be.

13. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Drumm, Pelosi, Chen and in view of Claus et al (US 4,854,706).

In regards to claim 5, Drumm as modified does not disclose a laser speckle pattern generator comprised of a low power solid state laser projecting a beam into a fiber optic bundle or a holographic plate to produce a speckle pattern. Drumm does disclose motion correlated to the motion of the operator's head (col. 2, lines 6-10).

Claus does disclose a laser speckle pattern generator comprised of a low power solid state laser projecting a beam into a fiber optic bundle or a holographic plate to produce a speckle pattern (col. 12, lines 14-16). It would have been obvious at the time of invention to modify Drumm as modified with the teachings of Claus because it spreads out the laser so that it can cover more of the sensor surface.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art (Pelosi US 2002/0175897) is deemed relevant since it is the divisional application to Pelosi (US 6,424,410).

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pervan whose telephone number is (571) 272-0910. The examiner can normally be reached on Monday - Friday between 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MVP
Oct. 3, 2005

Lun-Yi Lao
Primary Examiner